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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,670	02/28/2002	Ryugen Yonemura	50212-357	2519
20277	7590	11/26/2003	EXAMINER	
MCDERMOTT WILL & EMERY 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			ROJAS, OMAR R	
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			2874	

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 10/084,670	Applicant(s) YONEMURA, RYUGEN	
Examiner Omar Rojas	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Optical Module With Lens Holding Member.

3. The disclosure is objected to because of the following informalities:

On page 20, line 19, the term "second outer face" should refer to reference numeral 30l rather than 30m.

On page 20, lines 24-25, the term "third outer face" should refer to reference numeral 30m as shown in the drawings.

Appropriate correction is required.

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any additional errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "said optical semiconductor element" in lines 6-7 on page 43. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 8 recites the limitation "said one end portion of said mounting member 122" in lines 3-4 on page 47. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 17 recites the limitation "said inner surfaces" in line 15 on page 51. There is insufficient antecedent basis for this limitation in the claim.

10. Claims 2-7, 9-16, and 18-20 are also rejected under this section as being dependent on one or more rejected base claims.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 6, 8-9, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,061,493 to Gilliland et al. ("Gil").

To the extent the claim 1 is definite, Gil discloses (e.g., see Fig. 4) an optical module comprising: a mounting member 122 having a mounting portion, a supporting face, and a terminal, said terminal being provided in said

mounting portion 115, said terminal being electrically connected to an optical semiconductor element 120, and said mounting portion 115 being provided for mounting the optical semiconductor element 120; and a lens holding member 102 having one end portion 114, another end portion 104, a side wall portion, and a holding portion 126/127, said side wall portion and holding portion 126/127 being arranged in a direction of a predetermined axis between said one end portion and other end portion, said lens holding member 102 being provided on the supporting face of said mounting member so as to cover said optical semiconductor element 120; wherein said holding portion holds a lens 130 optically coupled to said optical semiconductor element 120; wherein said side wall portion has first and second inner surfaces.

Note that Gil does not expressly label the first and second inner surfaces or describe an imaginary "reference surface" as recited by claim 1. Nonetheless, the imaginary reference surface disclosed by Applicant (reference numeral 33a in the drawings) may be superimposed on Fig. 4 of Gil to define the first and second inner surfaces of lens holding member 102 in accordance with claim 1.

Regarding claim 6, to the extent the claim is definite, Gil discloses (e.g., see Fig. 4) the optical module according to claim 1, wherein said lens holding member 102 comprises first to third outer surfaces (not expressly labeled by Gil, but clearly shown in Fig. 4); wherein said first outer surface extends from said one end portion in a direction of said predetermined axis; wherein said second outer surface extends from said other end portion in a direction of said predetermined axis; wherein said supporting face and said

third outer surface extend in a direction in which a reference plane extends; and wherein said mounting member 122 has a plurality of additional terminals 124, a first face, a second face, and at least one hole, said mounting portion 115 being provided in said first face, said second face being opposed to said first face, and said terminal and said plurality of additional terminals passing through said hole(s); wherein each hole has a side face extending from said first face to said second face in a direction of said predetermined axis;

Note that Gil does not expressly label the first and second inner surfaces or describe an imaginary "reference cylinder" as recited by claim 6. Nonetheless, the imaginary reference cylinder disclosed by Applicant may be superimposed on Fig. 4 of Gil to define the relationship of the first and second inner surfaces of the lens holding member 102 in accordance with claim 6.

Regarding claim 8, to the extent the claim is definite, the lens holding member 102 of Gil would either be inherently welded to the mounting member 122 in the manner recited by claim 8, or, alternatively, it would be obvious to weld the invention of Gil in the claimed manner because welding in a well-known technique for attaching lens holding members to mounting members.

Regarding claims 9 and 15, the another reference surface recited by Applicant (reference numeral 93c (?) in the drawings) could be superimposed over Fig. 4 of Gil to literally define the same invention recited by claims 9 and 15.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gil as applied to claim 1.

Regarding claims 4, 7, and 16, Gil only substantially differs from the claimed invention in that Gil does recite using a sleeve in conjunction with his ferrule 107. However, it would have been obvious to one of ordinary skill at the time of the claimed invention to use a sleeve in Gil. The use of a sleeve would provide added support and/or protection for the ferrule 107 of Gil. Such uses are well known in the art. Therefore, it would have been obvious to one of ordinary skill at the time of the claimed invention to obtain the invention specified by claim 4, 7, and 16.

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gil as applied to claim 1 above, and further in view of US Patent 5,119,462 to Matsubara et al. ("Matsubara").

Gil appears to differ from claim 5 in that Gil does not disclose a cylindrical sleeve containing the lens holding member. Matsubara, on the other hand, does disclose a cylindrical sleeve 9 containing a lens holding member 4. See Fig. 1 of Matsubara. As disclosed by Matsubara, the cylindrical sleeve 9 provides "increased environmental

resistance." Id. at column 4, line 68. Thus, the use of a cylindrical sleeve containing the lens holding member would have been obvious in Gil.

Gil in view of Matsubara do not expressly recite a diameter of 4.5 mm. However, such a diameter could be inherent in Matsubara or, alternatively, obvious in view thereof since changing the size of objects has been held as obvious.

16. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gil as applied to claim 1.

Gil differs from claim 10 in that Gil does not expressly disclose that the length of the first portion is shorter than the length of the second portion. However, changes in size and proportion have been held as obvious. Thus, providing a shorter first portion in Gil would not constitute a patentable limitation.

17. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gil as applied to claim 1.

Gil appears to only substantially differ from claim 17 in that Gil does not expressly recite a bonding wire connecting the optical semiconductor element and said terminal with each other. However, it is the position of the Examiner that providing bonding wires would either be inherent in Gil, or an obvious modification thereof. This is because Gil already discloses electrical lead terminals 124. Furthermore, the use of bonding wires to provide electrical connections to semiconductor elements is well-known in the art. Therefore, if the recited bonding wires are not inherently present in Gil, their use would have been obvious to one of ordinary skill in the art at the time of the claimed invention.

18. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gil as applied to claim 1.

Gil differs from claim 18 in that Gil does not expressly disclose that the length of the first distance is greater than the length of the second distance. However, changes in size and proportion have been held as obvious. Thus, providing a greater first distance in Gil would not constitute a patentable invention.

Allowable Subject Matter

19. Claims 2-3, 11-14, and 19-20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 2-3, it does not appear to have been obvious in view of Gil to use a seam sealer apparatus in the manner recited by claims 2-3. Regarding claims 11-13, it does not appear to have been obvious in view of Gil to use the recited distance between the respective outer surface and supporting face as recited by each of claims 11-13. The Applicant appears to have disclosed a particular non-obvious benefit for providing such distances. Regarding claim 14, it does not appear to have been obvious in view of Gil to use the recited length of said internal terminal. The Applicant appears to have disclosed a particular non-obvious benefit for providing such a length. Regarding claims 19-20, it does not appear to have been obvious in view of Gil to use the recited welding portion located between the edge of an inclined face and the edge of a first inner or outer surface.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (703) 305-8528 and whose e-mail address is *omar.rojas@uspto.gov*. The examiner can normally be reached on Monday-Friday (7:00AM-3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hemang Sanghavi, can be reached on (703) 305-3484. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318 for regular communications. The fax phone number for After Final communications is (703) 872-9319. The examiner's personal work fax number is (703) 746-4751.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Omar Rojas
Patent Examiner
Art Unit 2874

or
November 15, 2003


HEMANG SANGHAVI
SUPERVISOR